

### Claims

1. Method of quantifying viral or bacterial particles having a cholesterol-containing envelope, wherein the particles are stained with a fluorogenic polyene macrolide and the fluorescence signals of the individual particles are then quantitatively determined.
2. Method according to claim 1, wherein the method is applied to retroviruses, orthomyxoviruses, paramyxoviruses, arteriviruses, togaviruses, bunyaviruses, rhabdoviruses, filoviruses, arenaviruses, coronaviruses, herpesviruses, flaviviruses, hepadnaviruses, poxviruses or iridoviruses.
3. Method according to claim 1 or 2, wherein the method is applied to HIV, measles virus, influenza virus, murine leukaemia virus or mycoplasmas.
4. Method according to one of the preceding claims, wherein the number of particles is determined by counting fluorescent particles under a fluorescence microscope.
5. Method according to one of the preceding claims, wherein filipin is used as the polyene macrolide.
6. Method according to claim 5, wherein the filipin fluorescence is excited at a wavelength of  $387 \pm 14$  nm and the counting is carried out at the emission wavelength of  $450 \pm 29$  nm.
7. Method according to one of the preceding claims, wherein for quantitative determination, the number and/or concentration of fluorescent particles is compared to the known number and/or concentration of specified fluorescent particles.
8. Method according to claim 7, wherein for comparison, fluorescent particles are specified that are from 0.5 times to twice as large as, especially, about the same size as, the particles being quantified.
9. Method according to one of claims 7 to 8, wherein for comparison, inert fluorescent particles are specified.

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10. Kit of parts for quantifying viral or bacterial particles having a cholesterol-containing envelope, which comprises
- a fluorogenic polyene macrolide and
  - (as optional constituent) fluorescent particles as reference standard.
11. Kit of parts according to claim 10, wherein the reference standard is present in an aqueous medium.
12. Kit of parts according to claim 10 or 11, wherein the fluorescent particles of the reference standard are inert particles.
13. Kit of parts according to one of claims 10 to 12, wherein the fluorescent particles of the reference standard are from 0.5 times to twice as large as, and especially about the same size as, the particles being quantified.
14. Kit of parts according to one of claims 10 to 13 having filipin as the polyene macrolide.
15. Use of a fluorogenic polyene macrolide, especially filipin, for quantifying viral or bacterial particles having a cholesterol-containing envelope.

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